



Examiners' Report

November 2017

Pearson Edexcel Functional Skills
Mathematics Level 2 (FSM02)

Functional Skills Qualifications from Pearson

Functional Skills qualifications from Pearson, the world's leading learning company. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications website at qualifications.pearson.com. Alternatively, you can get in touch with us using the details on our contact us page.

Pearson: helping people progress, everywhere

Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

November 2017

Publications Code FSM02_01_1711_ER

All the material in this publication is copyright

© Pearson Education Ltd 2017

Introduction

This Level 2 paper gave a range of contexts including plastering, home cooking and a driving school. The type of questions in the paper required learners to think carefully about how best to approach the question and how to interpret the answers. For some questions, a combination of skills was needed to find the answer required.

General comments

It was pleasing to see that most learners appeared to have access to calculators and rulers. A scale diagram required measuring so any learners without a ruler could have lost a significant number of marks. Centres must ensure that learners are able to access all of the equipment listed on the front of the test paper during the exam.

The majority of learners presented their working clearly but there were some instances where calculations were not shown or not organised. This led to some learners missing process marks.

Some learners still struggle to transfer their skills from a familiar to a less familiar context particularly when more than one skill is required.

Centres should encourage learners to check that they have answered the question that has been asked – often a decision is required for the final mark as well as a complete process. They should also give units when required, this will support learners in knowing what they have calculated and help them gain more marks overall.

Centres should encourage learners to understand when it is appropriate to round figures in calculations – some candidates do so in the intermediate stages of their processes and this leads to inaccurate final answers and lost marks.

Far too many learners did not demonstrate a check of their working when asked to do so. Centres are reminded of the importance of showing checks. It is important to note that a repeat of the original calculation does not constitute a check and that the check needs to be functional. There are marks available for these on every paper and where a learner is close to the pass mark they can make all the difference.

Section A

Q1a

The addition of 20% VAT was carried out effectively by most learners using appropriate methods. Early rounding led to some losing accuracy marks. Centres should encourage learners to work in as many decimal places as possible until the final answer to avoid losing marks.

Q1b

Many learners were able to successfully calculate with time converting between minutes and hours as necessary but others lost marks here for using the hourly rate given to pay for each minute worked. Where learners found the solution, some lost a mark for not giving their final answer in money notation. Many failed to address the need to show a check. Centres must stress the importance of checking often during working and being able to demonstrate how this can be done. Giving units is always helpful for the learner to see what they have found.

Q2

This scale drawing required multiple processes to gain full marks. Learners were required to measure and interpret the scale drawing and calculate an area using the measurements found. It was pleasing to note that where learners engaged with the scale drawing they were able to convert successfully between metric units and find the area required. However, many learners did not show any evidence of measuring the drawing at all and used only the numbers they could see given in the question. This allowed them to pick up one or two marks at most. Centres should encourage learners to interpret given scale drawings as well as constructing them. Learners should be able to find real life measurements from a given scale (in ratio format) and be able to find the scale when given a real life measurement and a representation in an accurate drawing.

Q3

This ratio question proved to be a challenge for some learners. Many simply added 3.5 to 1.5 to get the 5 litres in the question but did not engage with the ratio of glue and water required. Others divided 3.5 by 3 correctly but were not able to process it meaningfully to arrive at the final answer. Centres need to provide plenty of opportunity to work on ratios in a range of practical contexts. While many learners find them challenging the skills are widely transferable and thus of great value outside the classroom.

Section B

Q4a

A number of learners found this standard cooking time question challenging. Many did not read the instructions carefully and applied incorrect times to the different stages of cooking. Highlighting each part of the question carefully may help this as the question combined skills involving metric weight and working with time. It was pleasing to see that many centres seem to have taken on board the need to convert decimal time to hours and minutes thoughtfully.

Q4b

This straightforward formula question was answered very well. Occasionally a lack of knowledge of BIDMAS led to incorrect answers. Some marks were lost by not giving a decision as required by the context of the question. Learners should always read the question carefully and highlight the demand, to themselves, clearly.

Q5a

The majority of learners approached this proportion question successfully. Some learners lost a mark for truncating a recurring value too early in the calculation or not reading the demand carefully and failing to round their final answer. Again, learners should be encouraged not to round early in a calculation.

Q5c

It was pleasing to see that almost all learners could find the volume of a cuboid when given three dimensions. However, they struggled to realise that the volume of a square-based cuboid can be found from only two dimensions. When they were unsure of what number to use for the third dimension many worked with 4 instead of using the given 23cm. This question also asked for a reason for their decision. Learners need to practise articulating their reasoning when required, carefully considering the options and referring to them. Simply identifying a choice will not gain a mark where an explanation is required.

Section C

Q6

A straightforward average question allowed learners to find the mean or the median. A surprising number of scripts were blank for this question which suggests some learners were simply not adequately prepared for a Level 2 exam. However, most successfully found the mean (but did not go on to demonstrate a check as required).

Q7

This price comparison question was answered very well overall with a few learners struggling to calculate 17%. Some of the more unusual methods seen did not lead to the correct answer and suggested either a lack of skill or perhaps the absence of a calculator. Too many learners begin all percentage calculations by finding 10%. Centres should demonstrate a range of efficient ways to calculate a percentage of any given value.

Q8

Learners needed to extract a value from a distance table for this question. The majority of learners found the correct value in an unfamiliar type of table. The comparison of miles to be covered and mileage available was approached well and included a metric/imperial conversion. Calculations were generally laid out very clearly here. A few learners did not clearly show the value they were referring to from the table so were unable to gain full marks. Learners should be given the opportunity to examine a wide range of charts and tables and should practise extracting information from them.

Q9

Comparing like for like was essential to answer this question looking at fuel costs in petrol and electric vehicles. Many good answers were seen and learners were able to find figures to compare showing a range of approaches and final answers. Ensuring all calculations are clearly laid out is a useful skill which was particularly valuable here in gaining process marks. Occasionally learners lost a mark by rounding, mid process, with no explanation or indication – where they did not show a process first they could not gain any marks.

A common incorrect approach was multiplying the price per kilowatt by the number of miles possible or the price per gallon by the mpg – neither figure was helpful in finding costs to compare.

Considering units at each stage would help learners to think about what they are calculating and how it relates to the context of the question.

Ofqual
.....



Llywodraeth Cynulliad Cymru
Welsh Assembly Government



Rewarding Learning

Pearson Education Limited is a registered company in England and Wales whose registered office is at 80 Strand, London, WC2R 0RL, United Kingdom, company Registration number 872828, VAT Number GB278 5371 21.